

Meaningful Distinction

What's source?

What is destination?

```
public static void copyChars-
(char a1[], char a2[]){
... }
```

Use Pronounceable Names

Write names **out!**

Longer names trumps short Names

Searchable names trumps a constant in Code

Avoid Encodings

Make names pronounceable

Dirty:

```
class DtaRcrd102 {
private Date genymdhms;
private Date modymdhms;
private final String pszqint =
"102";} ⚡
```

Hungarian Notation

// Name **not** changed when type changed

PhoneNumber **phone**String;

Method Names

Use verbs, phrases like PostPayment, deletePage or SavePage

Constructor Methods, with Overload names, that use describe the arguments

No Member Prefixes

//Historic => Old Code or old Coder

```
private String m_dsc;
```

Interface & Implementation

Dirty Clean

```
interface class
IShapeFactory ShapeFactoryImpl
⚡
```

```
interface
Shapefactory
```

Don't Repeat Yourself

Refactor Clone
Copy & Paste

Verbs And Keywords

verb/noun Pair:

```
(to)writeField(name);
```

```
assertExpectedEqualsActual(-
expected, actual);
```

Use Descriptive Names

The Sequence should tell a Story:

```
includeSetup-AndTeardown-
Pages();
```

```
includeSuiteSetupPage();
```

```
includeSetupPages();
```

Use Problem Domain Names

If is there no Programming technique use the name from the Problem Domain

DomainDrivenDesign D3 not D3.js

Use Solution Domain Names

AccountVisitor VisitorPattern

Don't be cute

Dirty **Clean**

```
holyHandGren- delete-
ade() ⚡ Items()
```

```
eatMyShorts() ⚡ abort()
```

One Level of Abstraction per Function

```
interm String pagePathName
ediate = PathParser.render(-
Level pagePath);
low .append("\n").
Level
```

Add Meaningful Context

```
addressFirstName
```

```
addressLastName
```

```
addressState
```

Functions

```
public static int add ( int numA, int numB ) {
    int result;
    result = numA + numB;
    return result;
}
```

max. 150 Characters
should hardly ever be 20 lines long
max. 100 Lines Long

Sideeffects

If you must have a temporal coupling, you should make it **clear in the name** of the function
checkPasswordAndInitializeSession()

Avoid Mental Mapping

Clean: loop Counter **only**: i, j, k

Dirty: **k** and **l** because One (1) ⚡
=> too much

cont = continuation

Flag Arguments

Passing a boolean into a function is a truly terrible practise

```
render(boolean isSuite) ⚡
```

Structured Programming

Use * occasional multiple return,

* break and

* continue statement does no harm

Don't USE never, ever, any goto statements ⚡

but only in special languages. Be careful, you can destroy or control flow

on Arguments

Useless:

Niladic(0) best Solution:

```
includeSetupPage()
```

Polyadic (More than three Arguments):

```
ResponseEntity<Map>
responseEntity1 =
restTemplate.exchange
(REST_SERVICE_URI+"/contract/"
HttpMethod.PUT, entity, Map.class
```

Usable

Monadic:

```
boolean fileExists("MyFile")
```

Dyadic:

```
assertExpectedEqualsActual(exp-
ected, actual);
```

Triadic:

```
assertEquals(1.0, amount, .001);
```

Don't add Gratuitous Context

You need:

- * descriptive Skills
- * shared cultural background
- * Don't be afraid of Renaming
- * Use Refactoring Tools
- > IntelliJ

Blocks And Indenting - Arrow Code

The indent level of a function should not be greater than

one or two

TO paragraph

We want every function to be followed by those at the next level of abstraction so that we can read the program, descending one level of abstraction at a time as we read down the list of functions.

To say this differently, we want to be able to read the program as though it were a set of TO paragraphs, each of which is describing the current level of abstraction and referencing subsequent TO paragraphs at the next level down.

MethodHeader:

To include the setups,

Code:

we include the suite setup if this is a suite, then we include the regular setup.

Don't Pun

Use:

insert(), append()

Instead of

add()

Command Query Separation

Either your function should change the state of an object, or it should return some information about that object:

```
public boolean set(String attribute, String value);
```

Clean:

```
if (attributeExists("username")) {setAttribute("username", "unclebob"); ... }
```

Dirty:

```
if (set("username", "unclebob"))- {...} ⚡
```

Avoid Mental Mapping

loop Counter i, j, k

only:

Never I because One(1)

One Thing

Functions should do **one thing**. They should do it well. They should do it only

* Aids the Reader

* Promote Reuse

*Eases Naming & Testing

*Avoid Sideeffects